

## AQUATIC LIFE DESIGNATED USE

### What does the indicator tell us?

**T**his indicator shows the percentage of assessed waterbodies that have attained the aquatic life use designated by states and tribes as part of their water quality standards. States and tribes define their waterbodies, monitor their quality, and report the results to EPA, which publishes the individual and aggregated results in the *National Water Quality Inventory*. According to the 1994 *Inventory*, 69 percent of assessed rivers and streams, 68 percent of assessed lakes and reservoirs, and 70 percent of estuaries can support healthy aquatic life.

### How will the indicator be used to track progress?

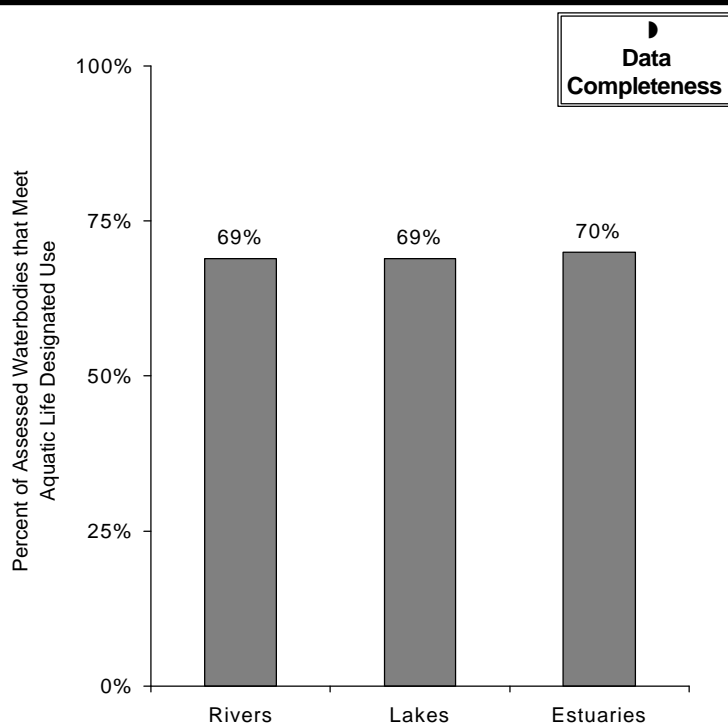
**T**he Clean Water Act requires states and tribes (if authorized) to adopt standards with designated uses for waterbodies or waterbody segments. One of these designated uses is aquatic life. Section 305(b) of the Clean Water Act requires that states and tribes assess the degree to which their surface waters support the designated uses. State and tribes report the results of the assessments to EPA every 2 years through the issuance of 305(b) Reports. Data from the reports are then aggregated to form the *National Water Quality Inventory*, which is used to portray the status of the Nation's waters. The results reported in the *National Water Quality Inventory* will be used to track changes in the indicator.

### What is being done to improve the indicator?

**S**ection 305(b) of the CWA currently requires states and tribes to report water quality monitoring results to EPA. It is important to note that states, tribes, and other jurisdictions do not use

identical survey methods or criteria to assess waters, in spite of guidelines issued by EPA and developed by the 305(b) Consistency Workgroup, composed of 25 states, 3 tribes, and 7 federal agencies. In addition, most states and tribes do not assess all of their waterbodies during the 2-year 305(b) reporting cycle, and they might even modify criteria or assess different waterbodies every 2 years. In 1994, only 17 percent of the Nation's river and stream miles (48 percent of those which are constantly flowing), 42 percent of its lake and reservoir acres, and 78 percent of its estuaries were assessed for overall water quality.

### INDICATOR 10d: Aquatic Life Designated Use



Source: *National Water Quality Inventory: 1994 Report to Congress, 1995*; 17 percent of all river and stream miles (48 percent of constantly flowing miles), 42 percent of lake and reservoir acres, and 78 percent of estuarine square miles were assessed

**Proposed Milestone:** By 2005, 80 percent of the nation's surface waters will support healthy aquatic communities.

305(b) data used to support this indicator might not represent general conditions in the Nation's waters because states, tribes, and other jurisdictions often focus on major perennial rivers, estuaries, and public lakes with suspected pollution problems in order to direct scarce resources to areas that could pose the greatest risk. Many states, tribes, and other jurisdictions lack the resources to collect information for nonperennial streams, small tributaries, and private ponds. This indicator does not predict the health of these or other unassessed waters. Because of these limitations, EPA must use caution in comparing data between states, tribes, and other jurisdictions, as well as between reporting periods.

In an effort to improve future reporting, EPA is pursuing several initiatives. First, EPA is working with the states and tribes to more precisely define their aquatic life uses, such as salmon spawning in rivers and lakes, cold freshwater habitat, warm freshwater habitat, and marine habitat. EPA is also working with states and tribes to better link assessments to the particular aquatic life designated use and to evaluate and reconcile potentially conflicting chemical and biological data.

EPA is working with its partners to develop monitoring and assessment approaches that will improve state-to-state consistency in reporting. This will provide a more accurate picture of the Nation's waters when all of the data are aggregated on a national basis.

EPA is working with states, tribes, and other federal agencies to change the 305(b) reporting cycle from 2 years to 5 years, with annual reporting of key data for the waters assessed in each year. This will enable comprehensive reporting of waters meeting designated uses each 5-year period.

The 305(b) Consistency Workgroup and the Intergovernmental Task Force on Monitoring Water Quality (ITFM) are providing guidance and assistance in an effort to improve monitoring, assessment, and reporting.

In addition, EPA is working with states and tribes to develop a guidance document to improve the assessment of the aquatic life in our nation's waters. The guidance will include ecological risk assessment principles that will assist states and tribes in

identifying causes of impairment. It will also include quantitatively based biological criteria for different types of waterbodies and ecological regions. The biological criteria will assist states and tribes in determining impairment of aquatic life. The criteria, in conjunction with habitat assessment methods, will also provide a more comprehensive and scientifically defensible basis for assessing aquatic life impairment.

### **What is being done to improve conditions measured by the indicator?**

**E**PA's *National Water Quality Inventory* shows that states identify agriculture, urban runoff/ stormwater, and municipal point sources as the largest pollutant sources for rivers, lakes, and estuaries. Aquatic life may be impacted by one or more of these sources.

Hydrologic modification, resource extraction, contaminated sediments, and natural sources such as atmospheric deposition, however, also impair aquatic life uses. In addition to continuing to control point sources, EPA and its partners also need to control nonpoint source pollution from both rural and urban areas.

EPA encourages states to use a place-based watershed framework to identify the causes of water quality degradation, to determine appropriate controls, and to manage the control programs. The watershed framework assists water resource managers in reducing stresses on water quality, such as toxic chemicals, siltation, habitat loss, nutrients from phosphate-based detergents and fertilizers, and elevated water temperatures resulting from loss of vegetative cover.

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